

Revised Work Plan

Prepared for:

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DRAFT

**Former Earth Protection Services Inc. (EPSI) Facility
Suite 4
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Phoenix, Arizona**

February 7, 2011

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Project No. 111988

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Figure 1 Location of EPSI Building Sections and Core Samples

Figure 2 EPSI Verification Sample Grid (per Subpart N)

LIST OF ACRONYMS

µg/100cm ²	micrograms per 100 square centimeters
µg/L	micrograms per liter
ADEQ	Arizona Department of Environmental Quality
CFR	Code of Federal Regulations
EPA	United States Environmental Protection Agency
EPSI	Earth Protection Services Inc.
mg/kg	milligrams per kilogram
ppb	parts per billion
ppm	parts per million
PCBs	polychlorinated biphenyls
RCRA	Resource Conservation and Recovery Act
SIP	Self Implementing Procedure
TSCA	Toxic Substances Control Act
TSDF	Treatment, Storage and Disposal Facility

1.0 INTRODUCTION

1.1 PURPOSE

Environmental Resources Management (ERM) has prepared this Revised Work Plan (the "Work Plan") to detail the process to characterize and decontaminate or remove PCB-affected concrete from portions of the former Earth Protection Services Incorporated, 10 South 48th Avenue, Phoenix, Arizona (the "Site"). This Work Plan, developed in part from characterization data previously collected by ERM (see Section 2 below), is intended to satisfy the Federal Toxic Substances Control Act (TSCA) codified in the Code of Federal Regulations § 40 CFR 761 (the "Rule"). The Rule establishes specific requirements governing Self-Implementing Procedures (SIP) for the characterization, cleanup and disposal of polychlorinated biphenyl (PCB) remediation waste. The attached Work Plan has employed these procedures in order to provide for the cost-effective closure of the PCB-affected rooms/areas in the Site building.

This Work Plan is also intended to serve as notice to the Region IX Environmental Protection Agency Administrator, Arizona Department of Environmental Quality and the property owner, as required under § 40 CFR 761.61(a)(3). Individual contacts at these agencies are as follows:

- Edwin "Chip" Poalinelli
US EPA Region 9
75 Hawthorne Street
San Francisco, CA 94105
- Anthony Leverock Office
Manager, Hazardous Waste Permits Unit
Arizona Department of Environmental Quality
1110 West Washington
- Mr. Gray Boucillon
Cobalt Industrial REIT
5606 North MacArthur Boulevard, Suite 350
Irving, TX 75038

The components of the notice detailed in that section served as the framework for this Work Plan.

A written certification, signed by a representative of the owner of the property (EPSI) and the party overseeing the cleanup (ERM) is included in Appendix A of this Revised Work Plan as required under §761.61(a)(3)(i)(E). That certification states that documents detailing the implementation and completion of the project, including but not limited to sampling plans, certificates of analysis, and drawings used to assess or characterize the PCB contamination at the Site will be filed and can be made available for EPA inspection. As noted in the certificate, this information will be stored at the VJ2C Incorporated office located at 2737 E. Biltmore Circle #4, Phoenix, Arizona 85016.

1.2

GENERAL SUMMARY OF SITE CONDITIONS

The former EPSI facility received, staged, stored, and reprocessed/recycled light ballasts. Some light ballasts contained PCBs, a group of chemicals regulated under TSCA. Ballasts that did not contain PCBs were stored in different areas of the Site from the ballasts that did contain PCBs. The general process followed by EPSI is outlined below:

- Containers were received by EPSI from generators and stored in the Ballast Storage Area (Area A1, Figure 1) until they could be examined. Containers were then separated depending on container labels. Containers labeled by generator as not containing ballasts with PCBs were not stored in Area A1.
- PCB containing ballasts were stored in steel drums.
- Drums were moved into a freezer and kept in the freezer for approximately 8 hours to allow the potting compound inside the ballasts to solidify.
- After the potting compound solidified, the drums were moved from the freezer into the Ballast Processing Area and opened.
- Ballasts were unpacked from each drum, and protruding wires were removed for recycling. The casing was then opened and the coil and capacitor removed. Capacitors and potting compound were placed in a metal drum to be shipped off the Site for disposal. Ballast cases, and copper and aluminum coils, were placed in separate bins or fiber boxes to be shipped off the Site for recycling. PCB containing materials were placed into steel drums for off-site disposal.

- When unpacking ballasts from a drum labeled as “non-PCB”, the discovery of individual ballasts labeled PCB or unlabeled caused the unpacking of the drum to be discontinued and the drum relabeled a containing PCBs. The drum was then transferred to the Ballast Storage area (A1). When processing the PCB containing ballasts, if a ballast was encountered that was leaking, the processing of the ballasts was stopped, the drum sealed, and the entire contents of the drum were sent off of the Site for disposal as a PCB waste.
- The potting compound and small capacitors removed from the unlabeled ballasts and ballasts labeled as containing PCBs were either incinerated or landfilled at a TSCA permitted facility. No disposal or recycling of waste occurred at the Site. In all cases, wastes were transferred from the Site for disposal or reuse.

EPSI notified Region IX EPA of their intent to close the facility in February 2009. Remaining materials staged for recycle had been processed and removed (recycled or disposed of) from the facility prior to January 2009. In March 2010, EPSI removed the remaining process equipment following wipe and bulk sampling. ERM provided oversight for the removal of the equipment and provided a report of the results (Appendix B.) All equipment was sent to a Class I Landfill.

The EPSI building was divided into eight areas, including seven process areas and the office area (see Figure 1). Each area’s boundaries were established based on homogeneity of previous activities conducted in that area. Floor drains, sumps, or other subsurface structures were not observed in the floor areas of Areas A1 through A7. The office area, identified as Area A8, is not included in this work plan as EPSI protocol was that warehouse workers did not enter the office area without removing exterior protective shoe covers. In addition, EPSI employees typically did not come into contact with the oils in the light ballasts which may have contained PCBs. Therefore, it is unlikely Area A8 was impacted by PCBs.

	Area Name	Activity	Surface Floor Size ft (m) ²
A1	Ballast Storage Area	Storage of PCB Containing	3,038 (282)
A2	Freezer	Ballasts frozen for processing	294 (27)
A3	Ballast Processing Area	Ballast cases opened, materials removed for recycle or disposal	2,232 (207)
A4	Material Staging Area	Materials unloaded from trucks, containers labeled PCBs moved directly to A1	3,296 (306)
A5	Lamp Storage Area	No PCB containing materials stored in this area	6,047 (562)
A6	Walk Area	No PCB containing materials stored in this area, materials from freezer	2,755 (256)
A7	Miscellaneous Storage Area	No PCB containing materials stored in this area (recyclable materials) stored	1,660 (154)
	Totals		19,332 (1,795)

As detailed in the demolition, decontamination and site assessment reports in Appendix B, from July through September 2010, internal features of the building were demolished and site assessment activities were conducted. The concrete block walls that surrounded the Ballast Processing Area (A3), the freezer (A2) and electrical conduit and water sprinkler lines supplying the freezer, drywall on the north wall of the Ballast Processing Room (A3), electric and compressed air piping/conduits supplying the Ballast Processing Room (A3) were removed back to the panel. The secondary containment curbing including the ramps in the Ballast Storage area (A1) were demolished and removed. The floor coating (top ¼ inch removed including coating and concrete) in A2 was also removed. Floor and remaining walls were cleaned by power washing with water and an industrial cleaning solution.

1.3

SUITABILITY OF THE SELF IMPLEMENTING PROCEDURE

The proceeding description of the general nature and extent of the PCB contamination remaining in the EPSI facility was evaluated relative to the criteria set forth by EPA to assess the appropriateness of using the self-implementing procedure ("SIP"). §40 CFR 761.61(a) of the Rule states that EPA developed the SIP for "moderately-sized sites where there should be low residual environmental impact from remedial activities. The

application of the SIP was not intended for the remediation of surface water or groundwater; sediments in marine or freshwater ecosystems; sewers or sewage treatment plants; drinking water sources or distribution systems; grazing lands; or vegetable gardens."

The Site does not meet any of these specific exclusions and also appears to satisfy the general requirements. The extent of the PCB contamination is well defined and localized within a small portion and remediation is unlikely to impact the environment as the contamination is confined to top ¼ inch of the concrete slab in the former processing area that is underlain by a thick concrete slab. Based on this analysis, the SIP appears to be an appropriate process for remediating the PCB-impacted materials at the Site.

SUMMARY OF PREVIOUS SITE CHARACTERIZATION

The architectural features (concrete block wall, drywall, piping, electrical conduit, etc.), as detailed in the reports in Appendix B, were removed and the resulting bulk waste was tested for PCB. The samples tested were composited and the analysis was below the method detection limit. The floors and walls were then carefully examined. The floors and walls in Areas A1, A2, A3, A4, A6 and A7 and the other interior were cleaned by power washing with water and an industrial cleaning solution. The cleaning solution collected from power washing was analyzed for PCB and the sample tested below the method detection levels. No staining associated with ballast recycling was found. A 3-meter square grid pattern (per Subpart N, 40 CFR 761.265) was set up for Areas A1, A2, A3, A4, A6, and A7, and the grids were numbered (See Figures in Appendix B). Using a random number generator (www.random.org), 10 percent of the grids within each area were wipe sampled. A random number generator was also used to select the 1 meter by 1 meter section for sampling within the 3 meter grid. The wipe sample was taken from the center of the 1 meter section. The number of wipe samples per area is as follows:

- Area A1; 282 sq. meters, 3 wipe samples plus one duplicate
- Area A2; 294 sq. feet or 27 sq. meters, 1 wipe sample
- Area A3 is 2,232 sq. ft or 207 sq. meters, 3 wipe samples plus one duplicate.
- Area A4 is 3,296 sq. ft or 306 sq. meters; 4 wipes samples
- Area A6 is 2,756 sq. ft or 256 sq. meters; 3 wipe samples plus 1 duplicate.
- Area A7 is 1,676 sq. ft or 156 sq. meters. 2 wipe samples

None of the wipe samples collected in Areas A1, A2, A3, A4, A6, and A7 had PCB concentrations over the 10 micrograms per wipe (or 100 square centimeters), most were below the method detection limit (See Appendix B).

To verify that the floors had been adequately cleaned and to assess any possible vertical impact, expansion joints and/or cracks in the concrete were selected for shallow concrete sampling in each area, as follows:

- Area A1; One (1) Expansion joint sample in the center of the Ballast Storage Area,
- Area A2; Wood isolation joint sample at the entrance to the Freezer,

2.0
which
procedures
were
followed?

Composite
samples,
what is
detection limit?

This conclusion
should be
made based
on combination
of bulk counts
samples / wipes
not just wipes

- Area A3; Three (3) Expansion joint samples along the length and coincident with concrete crack,
- Area A4; One (1) Expansion joint sample in the center and coincident with a crack in the concrete,
- Area A6; One (1) Expansion joint sample in the center and coincident with a crack in the concrete, and
- Area A7; One (1) soil sample taken below grade from the open electrical grounding rod coring.

Additionally, 2-inch diameter concrete core samples were collected through the floor slab (approximately 5-inches depth) in the following locations:

- Area A2; Adjacent to wood isolation joint at the entrance to the Freezer, described above.
- Area A3; Adjacent to the three (3) expansion joint shallow corings, described above.
- Area A4; Adjacent to the (1) expansion joint shallow concrete sample, described above.
- Two additional random samples in A3 and A4 where the concrete was intact.

The results of the site assessment sampling and analysis, remediation and verification sampling activities are detailed in the reports in Appendix B and summarized for each area, as follows:

Ballast Storage area (A1) – The Ballast Storage area was formerly coated and surrounded by a secondary containment curb and considered a non-porous surface where PCB containing ballasts were stored in steel drums. The impermeable coating and the concrete curbs had been removed in July 2010, as part of the clean up effort. The top ¼ - ½ inch of the concrete floor in Area A1 had been removed as part of that work (See Appendix B). A shallow concrete sample collected at a depth of ½ to 1 inch below grade from a crack/expansion joint in A1 (A1-EJ-1B) exhibited a PCB concentration of 0.33 mg/kg.

Freezer (A2) – The freezer was constructed of steel and therefore considered a non-porous surface. It was wipe sampled (with no detectable PCB concentrations), removed from the site and disposed of in a Class I landfill. The concrete floor of the freezer was cleaned by power washing with water and an industrial cleaning solution. A bulk sample (A2-EJ-1B) collected from the wood expansion joint under the formerly located

freezer had a PCB concentration of 5.4 mg/kg. This expansion joint was removed and disposed of in a Class I landfill. A 2-inch diameter concrete coring directly adjacent to the wood expansion joint and through the slab (approximate depth of 5 inches) was collected. The PCB concentrations of the top and bottom 1/4 inch samples of this concrete coring (A6-EF-C-T and A6-EJ-C-B) were 0.96 mg/kg and below the method detection limit respectively.

Ballast Processing Area (A3) – Frozen ballasts were opened and recyclable materials segregated in this area. In March, 2010, the remaining process equipment was wipe sampled, removed from the site and disposed of in a Class I Landfill as a PCB containing waste (See report in Appendix B). In July 2010, the concrete block walls that surrounded the Ballast Processing Room, electrical conduit and water sprinkler lines drywall on the north wall of the Ballast Processing Room, electric and compressed air piping/conduits supplying the Ballast Processing Room were removed back to the panel. The bulk waste was profiled for PCB and the sample measured under the method detection limit. Materials were shipped to a Class I landfill for disposal. The floor and remaining walls were cleaned by power washing with water and an industrial cleaning solution. Wipe samples collected in Area A3 after cleaning were below the method detection limit for PCBs. Three shallow concrete samples collected along the east-west expansion joint were under the High Occupancy clean up level (<10 mg/kg). Four additional 2-inch diameter corings through the slab (approximate depth of 5 inches) were collected. Three corings were adjacent to the expansion joints and one coring was in the center of the intact slab at a randomly selected location. The top and bottom 1/4 inch of each coring was collected and analyzed for PCBs. None of the bottom 1/4" samples from any cores in A3 had detectable levels of PCBs. Only one core had a PCB concentration greater than 10 mg/kg and that was in the top 1/4 inch sample (Sample A3-C-2-T at 12 mg/kg).

Material Staging Area (A4) – This area was the transition between where the materials were moved from the trucks to the staging (Area A4) and the Ballast Storage Area (Area A3). PCB containing materials were moved across this area, but were not stored or processed. The concrete floor of this area was cleaned by power washing with water and an industrial cleaning solution. There was no staining or evidence of any spills in this area. A shallow concrete sample collected from a crack in the center of this area measured 2.0 mg/kg (Sample A4-EJ-1B). Two 2-inch diameter corings through the slab (approximate depth of 5 inches) were collected; one directly adjacent to the shallow concrete sample and a second in a random location from the intact slab. The top and bottom 1/4" samples

from these corings were analyzed for PCBs. The bottom section of the core measured below the detection limit and the top sections measure 1.1 mg/kg (A4-EJ-C-T adjacent to crack) and 0.3 mg/kg (A4-C-T, intact slab).

Lamp Storage Area (A5) -- This area was previously used for another operation (fluorescent and HID lamp recycling) and was sampled and clean-closed (RCRA) in 2005. No PCB containing ballasts were stored or processed in this area. The concrete floor of this area was cleaned by power washing with water and an industrial cleaning solution, no samples were taken.

Walk Area (A6) -- This area was a transition walkway between the Freezer (A2) and the Ballast Processing Area (A3). Frozen materials were transported through this area for processing. No ballasts were stored or processed in this area. The concrete floor of this area was cleaned by power washing with water and an industrial cleaning solution. Wipe samples measured below the method detection limit and shallow concrete core samples had measured PCB concentrations less than 1 mg/kg.

Miscellaneous Storage Area (A7) -- This area was a transition walkway between the Ballast Processing area and the Storage Area. No ballasts were stored or processed in this area. There was an open section of the concrete in this area for an electrical grounding rod. A sample of the soil around the grounding rod (A7-BG-1) was collected and analyzed for PCBs. It measured 14.0 mg/kg PCBs. The opening was then enlarged to 2 foot by 2 foot, and the approximately 3 inches of soil below the slab was removed. The second sample, collected at approximately 12 inches below ground surface had no detectable levels of PCBs. The concrete floor of this area was cleaned by power washing with water and an industrial cleaning solution, at the same time the other areas were cleaned.

2.1

SUMMARY OF PCB CONCENTRATIONS IN AFFECTED AREAS

Only one core exhibited a PCB concentration greater than 10 mg/kg, and that was from in the top ¼ inch sample (Sample A3-C-2-T at 12 mg/kg). Using the appropriate sampling procedure, additional sampling of porous surfaces will be done to either clean close the facility (< 1 mg/kg) or perform on-site disposal under the High Occupancy clean up level, (> 1 mg/kg but less than 10 mg/kg) with the appropriate control and deed restriction.

2.2

ASSESSMENT OF EXISTING DATA UNDER SUBPART N

This Rule establishes guidance for completing characterization sampling in Subpart N, "Cleanup Site Characterization Sampling for PCB Remediation Waste." This subpart serves as the metric for, "assessing the sufficiency of existing site characterization data. Since a significant amount of data has been collected at the Site, ERM reviewed the data in relation to the characterization requirements.

Sampling of porous surfaces as specified in § 40 CFR 761.265(n), which in turn refers to sections that suggest the sampling frequency and collection methods, was the method used during the completion of ERM's wipe sampling program. The sampling frequency suggested in § 761.283 includes the collection of at least three samples from each type of PCB remediation waste. These sections also detail the selection of sampling locations and sample preparation and handling. While the previous investigation activities do not satisfy the requirements (wipe sampling of porous surfaces), the existing data set provides an initial understanding of the PCB concentrations in the facility.

The other porous surfaces that have not yet been adequately characterized by bulk sampling will require additional sampling to verify PCB concentrations. The characterization of these materials will be completed in general accordance with Subpart O. The use of the sample compositing procedures under §761.289 will be employed to reduce the number of laboratory analyses required to complete the characterization, as appropriate. Our proposed sampling and compositing process is included in the following section of this Work Plan.

2.3

PRE-REMEDIATION CHARACTERIZATION APPROACH

Additional sampling will be conducted on the floors in Areas A1 through A7. Our characterization sampling and analysis approach, with EPA approval, will consist of the following:

Each core sample will be collected using a 3 cm concrete coring bit and separately containerized and labeled in the field. The samples will be transported to the laboratory by ERM personnel where they will be prepared and composited by laboratory personnel in accordance with Subpart O. It is ERM's opinion that handling and preparing the samples in the controlled environment of the laboratory will improve the quality of the composite. Additionally, a portion of each crushed core sample will be set aside for possible subsequent individual analysis, should the PCB concentration of the composite sample exceed the calculated maximum of 8.33 mg/kg.

The laboratory will create a composite from 9 discrete samples (per Subpart O) and analyze two aliquots of the composite. The results of the two analyses will be compared, and if the deviation between the results is greater than 30% the sample will be further mixed and, two more duplicate samples from that composite will be measured and analyzed. The laboratory will report the PCB concentrations for all of the duplicate samples analyzed in mg/kg, along with the deviation. The laboratory will also be required to provide the results of instrument blanks, surrogate recoveries and other internal quality assurance samples/analyses. All analytical methods and procedures will be documented on the certificates of analysis. Because of the laboratory's experience with this sampling and compositing procedure, ERM does not anticipate the need to reanalyze the samples to reach the <30% deviation threshold. The analytical and QA/QC procedures are discussed in section 3.4 of this plan.

3.0 REMEDIATION/DECONTAMINATION PLAN

The Rule specifies remedial criteria for porous and non-porous surfaces that also consider the use of the area.

3.1 TARGET CLEANUP LEVELS

§ 761.61 "PCB remediation waste" provides the cleanup and disposal options for PCB remediation waste such as that found at the Site. Specifically, § 761.61(4)(iii) specifies remediation levels and decontamination levels for porous surfaces as follows:

The cleanup level for bulk PCB remediation waste in a high occupancy area is 1.0 mg/kg. However, remediation of such materials to concentration between 1.0 mg/kg than 10 mg/kg is allowed with the controls and a corresponding deed restriction in place on the property.

While other remediation criteria are available under the regulations, our understanding of the Site conditions suggests that the use of these criteria will yield a cleanup that is protective of the future users of the facility and the structural integrity of the facility, while minimizing encumbrances on the property.

3.2 GENERAL APPROACH

If the sample concentrations measure less than 1 mg/kg of PCB, the facility will be clean -closed. If sample concentrations are greater than 1 mg/kg but less than 10 mg/kg of PCBs, that concrete will remain in place under the appropriate control and/or deed restriction.

3.3 DETAILED REMEDIATION APPROACH

The general approach to the Site remediation is presented in Section 3.2. This section of the Work Plan summarizes the characterization/ remediation approach for each surface at the Site based on our existing understanding of the Site conditions and recent site characterization. This section also discusses specific issues affecting the implementation of this remediation Work Plan in particular portions of the remediation area.

Interior Areas (A1-A7)

The existing data indicates that total PCB concentrations in concrete are within the High Occupancy clean up level (<10 ppm), therefore no mass removal of any additional material is planned. If sample concentrations are greater than 1 mg/kg but less than 10 mg/kg of PCBs, that concrete will remain in place under the appropriate control and/or deed restriction. This conclusion is dependent on the collection of an adequate number and distribution of samples that confirm the data previously collected in these rooms, which indicated PCB concentrations in the concrete are below that level.

Exterior Areas

No ballast storage or processing was conducted outside. Only non-PCB empty ballast casings, staged for scrap steel recycling were stored outside. Since no PCB activity was ever conducted outside the building, sampling these areas is not required.

CAFO Area: Two small areas (in and around the railroad) immediately to the west of the EPSI facility were cleaned of PCB contamination under a Consent Agreement and Final Order (CAFO). These areas are referred to as the north and south CAFO areas. These areas, consisting of railroad ballast and soil were sampled in 2005 to confirm completion of clean-up activities. No PCBs were detected above the CAFO agreed upon continuing action levels. In 2006, as part of the CAFO agreement, additional samples were taken for analysis from the same locations and were presented to the same lab for analysis. Results of some of the samples from 2006 were above action levels. Samples were again collected in 2007, but were sent to a different lab for analysis. Results of the 2007 samples matched the results from 2005, indicating that the area was below action levels for PCB remediation. This series of results indicates an analytical problem in 2006. Therefore, no re-sampling of the CAFO areas is planned. The facility did not ship or receive any materials by rail. Material loading and unloading was done on the east and south sides of the building. The area was cleaned of PCB contamination and two sets of samples confirm clean-up is complete.

Drywell: The storm drain serving the Site runs north and south along the west exterior wall of the facility, then turns east and north terminating in a drywell on the northeast corner (not on the former EPSI- leased property). Storm water drains to the dry well from various other facilities including the former EPSI property. Any of the other facilities could be responsible for impacts to the drywell. ERM performed sampling of sediment in the

bottom of the drywell on August 10, 2010 (Appendix B). The location of the sample is considered a worst-case sample location; the sediment in the base of the drywell would be expected to contain the highest PCB concentration. The PCB concentration was 0.096 mg/kg. This concentration of PCBs is below the action level established for the site, and no additional sampling is required.

3.4

VERIFICATION SAMPLING/ANALYSIS

This Work Plan proposes to conduct verification sampling to demonstrate that the remaining material are within the clean closure level of < 1 mg/kg or within the High Occupancy clean up level of > 1 mg/kg and less than 10 mg/kg PCBs, as is suggested by the previous data collected by ERM and others. This sampling will be completed in accordance with the sampling procedures outlined in Subpart N as required under § 761.61(a)(2).

Sample selection will follow the procedure in § 761.265 (a), as follows:

A square-based grid system will be used to overlay the areas (A1 through A7 excluding A5 and A8) to be sampled. The grid will be oriented on a magnetic north-south line centered in the area and an east-west axis perpendicular to the magnetic north-south axis. A series of sampling points 3 meters apart oriented to the grid axes will be selected. The sampling points shall proceed in every direction to the extent sufficient to result in a two-dimensional grid that overlays the sampling area. A sample will be collected at each point. All samples will be analyzed using the compositing schemes provided in the procedures at §761.289.

Sample Collection – The samples will be collected using a decontaminated coring bit to recover a 3 centimeter diameter core that is less than 7.5 centimeters long (depth). The samples will be delivered to an Arizona Department of Health Services (ADHS) certified laboratory for preparation and analysis. The preparation process will include crushing and compositing the sample. This volume of sample will also allow for the analysis of discrete samples if composite results indicate the presence of PCBs that require further removal. Samples will be logged immediately after collection and transported in a cooler to the lab within 8 hours. The distribution of the verification samples on each remediated surface will comply with procedures outlined in Subpart N, and are shown in Figure 2.

Compositing Procedures – Since compositing procedures will be employed in the verification sampling effort, ERM will collect discrete samples from the areas to be evaluated and direct the lab to complete the compositing work. Lab compositing was chosen to ensure that equal aliquots of each discrete sample were incorporated into the composite sample, a simpler task in the lab. The lab will be required to report that the compositing procedures were carried out in accordance with the procedures in § 761.289(a). Compositing procedures outlined in § 761.289(b)(1)(i), which are suitable for areas possibly contaminated from multiple sources, will be used for this effort.

Analytical Procedures & QA/QC – Discrete and/or composite samples will be analyzed using the methods specified in § 761.292. Specifically, extractions will be completed using Method 3550B. These extracts will then be analyzed using Method 8082 with results reported in PCBs in ppm by weight. Lab duplicates of ten percent of the composite and discrete samples collected for verification analysis will be analyzed for quality control purposes. The laboratory will also be required to provide the results of instrument blanks, surrogate recoveries and other internal quality assurance samples/analyses. All analytical methods and procedures will be documented on the certificates of analysis.

3.5 WASTE MANAGEMENT AND DISPOSAL

Based on the previous post-removal sampling and analysis, mass removal of waste materials is not anticipated in this plan, but minor amounts may be removed, if necessary. If waste is generated (i.e. hot spot removals), it will be handled as follows:

Waste generated during closure activities may include, but not be limited to, masonry block from an interior wall that may be removed from the Site, water from decontamination activities, PCB-impacted soils and sediments, and contaminated consumables such as PPE. If generated, these wastes will be characterized and transported to an appropriate facility for management and disposal.

Prior to sending wastes related to closure activities off of the Site for treatment and/or disposal, EPSI will assess and verify that each disposal facility selected is authorized to receive the specific waste. In addition, an effort will be made to assess if each facility receiving waste is in good standing with appropriate regulatory agencies.

Closure wastes sent off the Site for disposal will be placed in containers that meet the United Nations performance-oriented packaging standards or bulk containers that meet the U.S. Department of Transportation (DOT) requirements under 49 CFR 172 et seq.

Shipping containers will be properly labeled at the time of waste packaging and manifested in accordance with generator standards under 40 CFR 262 Subpart C. An appropriate waste manifest will accompany shipments of PCB-impacted waste generated at the Site. Transportation vehicles will also be properly placarded and marked in accordance with U.S. DOT rules.

The PCB remediation wastes including, PCB-affected concrete, decontamination wash waters, and personal protective equipment generated during the remediation and decontamination of the facility will be managed in accordance with the provisions detailed in § 40 CFR 761.61. These materials will be managed in a manner to minimize the potential for the release of PCBs to the environment. All documentation concerning the characterization and disposal of these wastes will be attached to the report detailing the completion of the work. Specific waste streams that are expected during the completion of the remediation are identified in the following discussion along with specifications concerning the management of these wastes while awaiting characterization and off-site disposal. Potential disposal facilities, anticipated to be able to accept these waste streams, are also identified below. Waste characterization, as referenced in these sections refers to potential disposal facility requirements.

3.6 *HEALTH AND SAFETY PLAN*

In accordance with 40 CFR 1910, all of the work conducted at the facility will be governed by the procedures set forth in a health and safety plan acceptable to ERM and the contractor. That plan will identify hot zones, contamination reduction zones and support areas, emergency contacts and services, decontamination procedures and personnel protective equipment to be employed during specific work activities. The plan will also include specific task hazard analyses, which will identify and address measures to protect workers from physical hazards expected to be present during the project. All workers participating in field activities will have appropriate training including, but not limited to 40 hour HAZWOPER training.

3.7 *REMEDIATION CONTINGENCIES*

The potential exists, based on the post-removal sampling and analysis previously conducted, for the identification of PCB concentrations in concrete that exceed the 1 mg/kg, but are less than 10 mg/kg. This occurrence could be addressed in the following ways:

- By removing additional concrete from the surface to reach a horizon where PCBs have not penetrated at levels that exceed the cleanup targets; and/or
- To assess the placement deed restrictions on the property

These options will be addressed in accordance with the regulations to achieve Site closure in a cost-effective and timely manner. Any changes to the closure of these areas of the Site will be fully documented and provided to the notified parties prior to implementation.

3.8 *SCHEDULE*

EPSI intends to initiate the verification sampling of the PCB-affected rooms within one week of receiving final approval of the Work Plan and satisfying the notification requirements. Documentation of all changes in the Work Plan will be included with the documentation referenced in Section 1.1 of this plan.

The work will progress during regular business hours until completion with the exception of typical inactivity resulting from laboratory turnaround of analysis results; contractor scheduling and facility acceptance of characterized PCB remediation wastes. Once the field work has been completed, a comprehensive report detailing the completion of the project will be submitted to the notifying authorities. That report is anticipated for delivery within 30 days of completion of the field work and receipt of all disposal documentation. That report will include detailed plans regarding the post-remediation PCB concentrations, sampling plans, data and disposal documentation.

4.0 CONCLUSION

This plan represents a cost-effective approach that uses conservative remediation goals that will be protective of human health and the environment. We anticipate employing common remediation techniques in areas that are essentially separate from the outside environment thereby minimizing the chance for impacts to environmental media.

5.0

LIMITATIONS

This report is based upon the application of scientific principles and professional judgment to certain facts with resultant subjective interpretations. Professional judgments expressed herein are based on the facts currently available within the limits of the existing data, scope of work, budget and schedule. To the extent that more definitive conclusions are desired by the client than are warranted by the currently available facts, it is specifically ERM's intent that the conclusions and recommendations stated herein will be intended as guidance and not necessarily a firm course of action except where explicitly stated as such. We make no warranties, express or implied, including, without limitation, warranties as to merchantability or fitness for a particular purpose. In addition, the information provided in this report is not to be construed as legal advice.

ERM is not engaged in environmental auditing and reporting for the purpose of advertising, sales promotion, or endorsement of any client's interests, including raising investment capital or recommending investment decisions, or other publicity purposes. The client acknowledges that any reports prepared by ERM are for the exclusive use of the client and agrees that ERM's reports or correspondences will not be used or reproduced in full or in part for such promotional purposes, and may not be used or relied upon in any prospectus or offering circular. The client also agrees that none of its advertising, sales promotion, or other publicity matter containing information obtained from this audit and report will make reference to ERM's trade name.

Figures

Project No.
0111988

Date:
02/03/11

Drawn By:
C. Tallada

CAD File:
F:\0111988\0111988-03.dwg

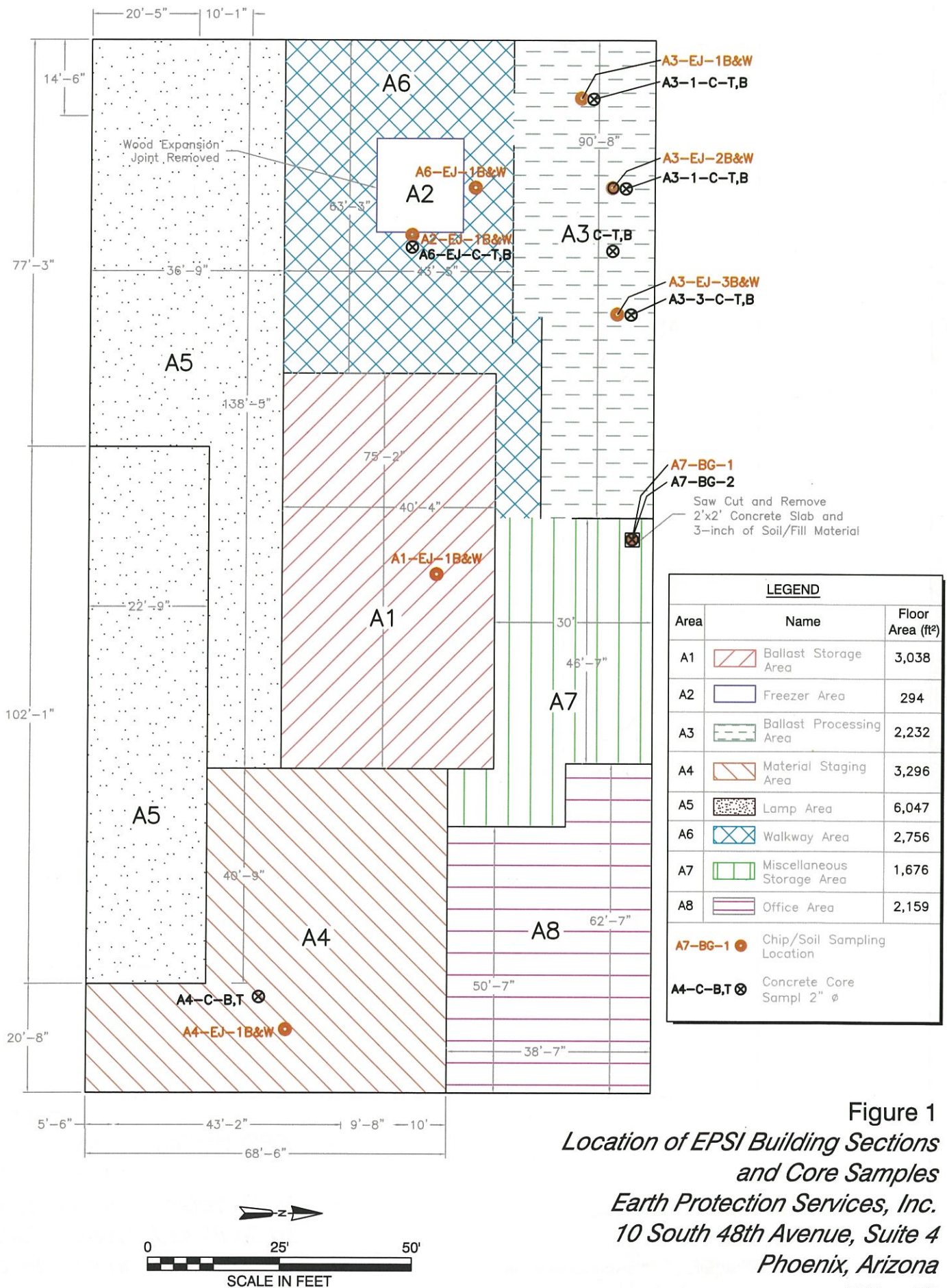


Figure 1
*Location of EPSI Building Sections
and Core Samples*
Earth Protection Services, Inc.
10 South 48th Avenue, Suite 4
Phoenix, Arizona

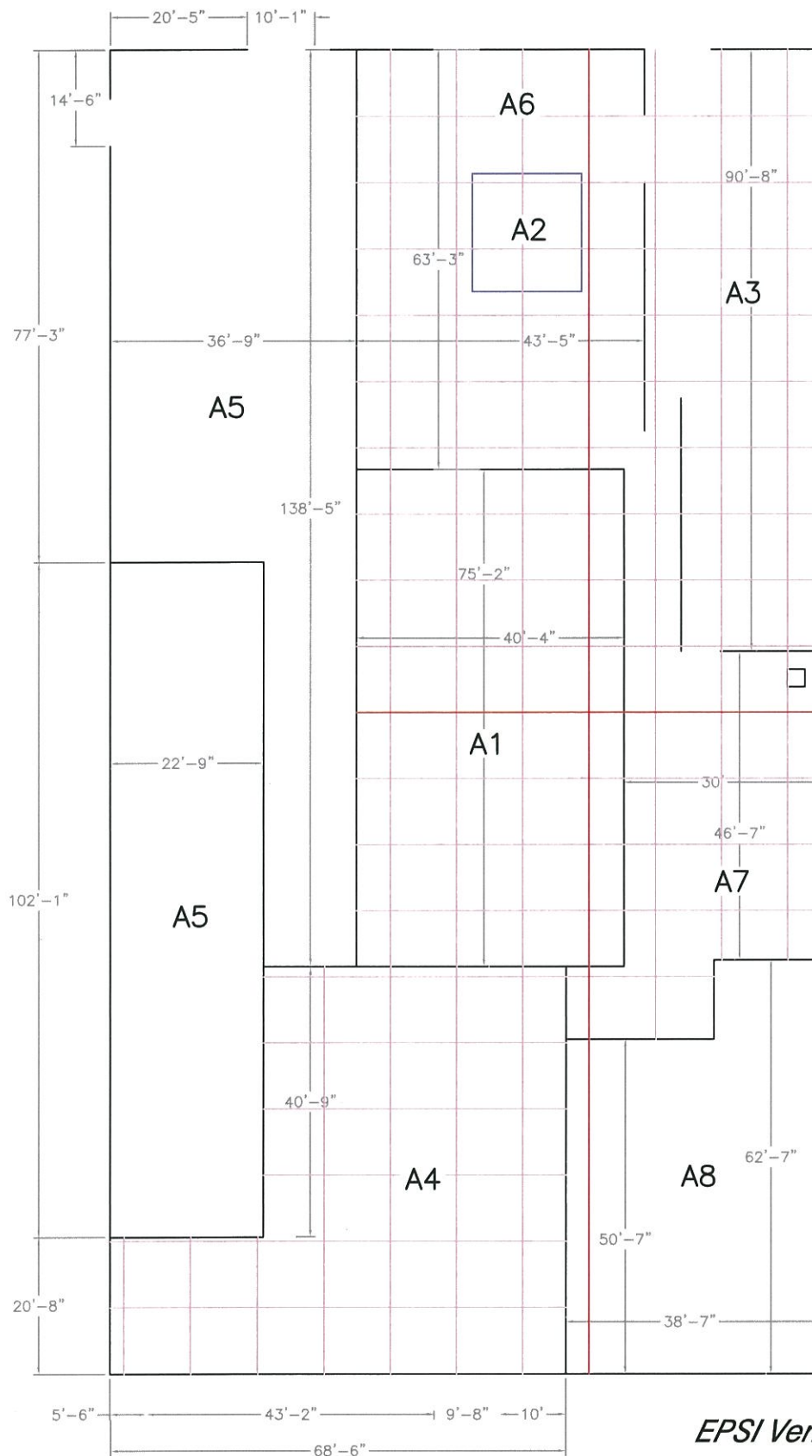


Figure 2
*EPSI Verification Sample Grid
(per Subpart N)
Earth Protection Services, Inc.
10 South 48th Avenue, Suite 4
Phoenix, Arizona*

DRAFT

Appendix A
SIP File Repository Certification

DRAFT

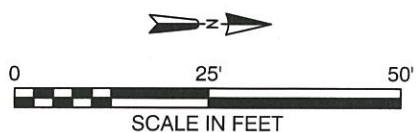
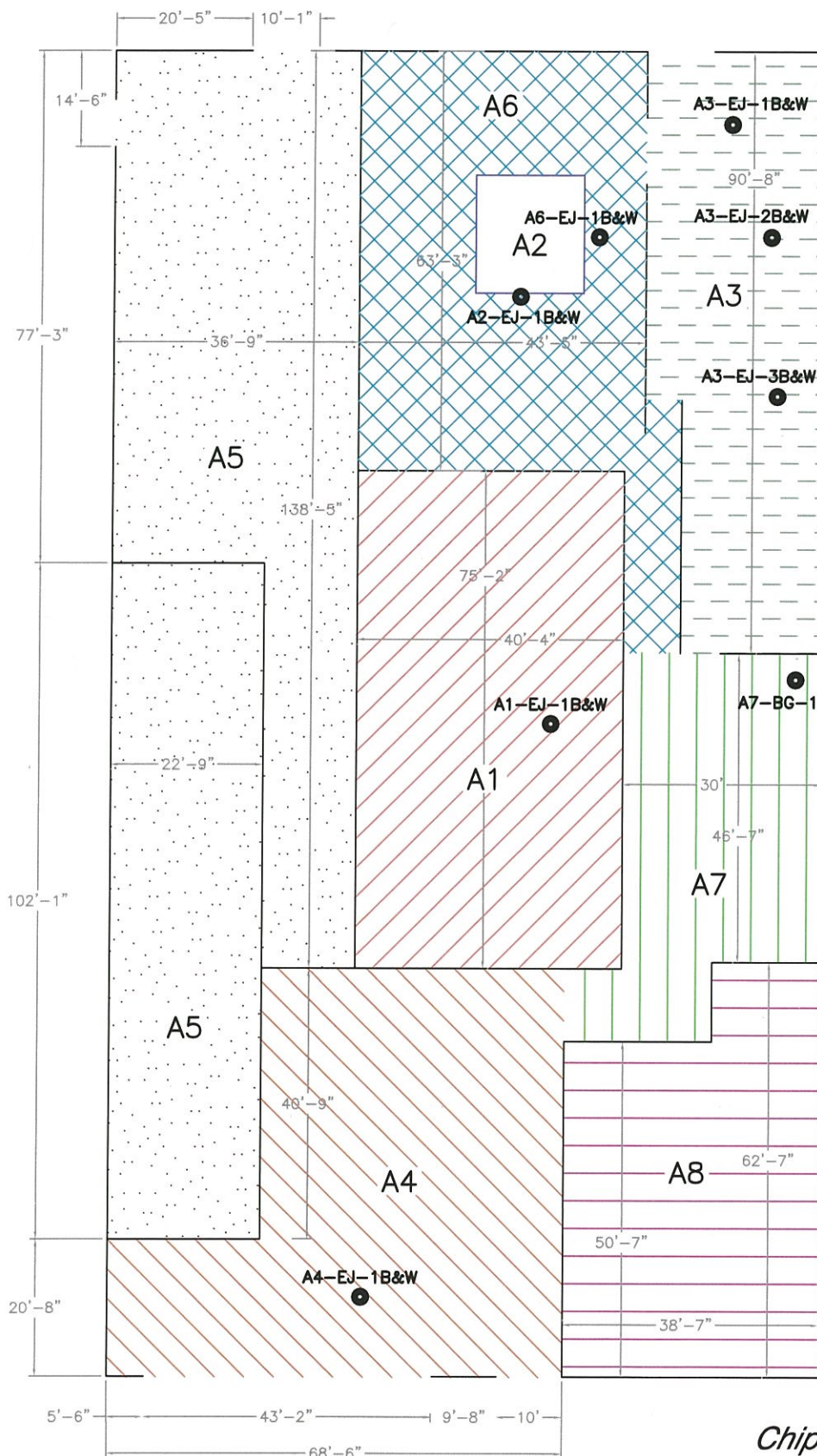
Appendix B
Previous Reports

Project No.
0111988

Date:
10/05/10

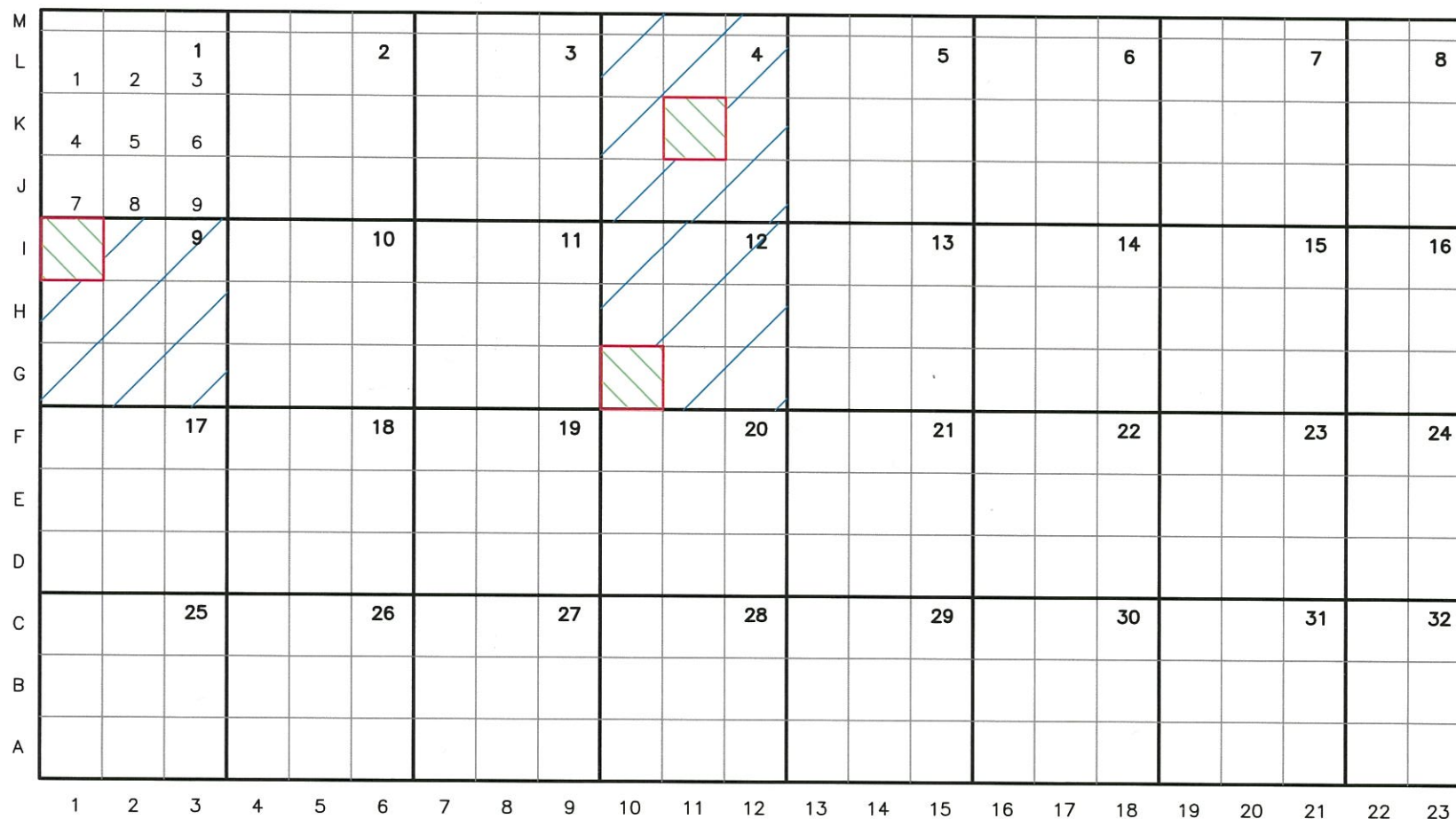
Drawn By:
C. Tallada

CAD File:
F:\0111988\0111988-01.dwg



LEGEND		
Area	Name	Floor Area (ft²)
A1	Ballast Storage Area	3,038
A2	Freezer Area	294
A3	Ballast Processing Area	2,232
A4	Material Staging Area	3,296
A5	Lamp Area	6,047
A6	Walkway Area	2,756
A7	Miscellaneous Storage Area	1,676
A8	Office Area	2,159
A7-BG-1 ● Sampling Location		

Figure 1
ESPI Building Interior
Chip/Wipe Sampling 8-10-2010
Decontamination Verification
Earth Protection Services, Inc.
10 South 48th Avenue, Suite 4
Phoenix, Arizona



LEGEND



3m Grid Randomly
Selected

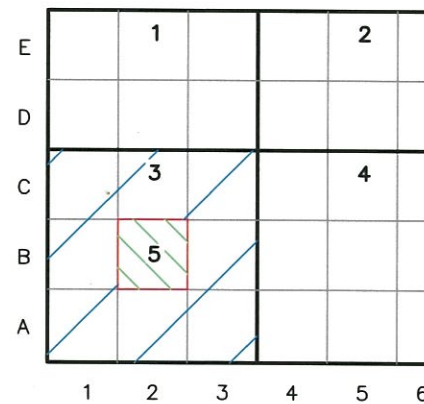


1m Quadrant Randomly
Selected



SCALE IN FEET

Figure 2
*ESPI Building Area A1 Floor
Decontamination Verification
PCB Wipe Sampling Locations
Earth Protection Services, Inc.
10 South 48th Avenue, Suite 4
Phoenix, Arizona*



LEGEND

-  3m Grid Randomly Selected
-  1m Quadrant Randomly Selected

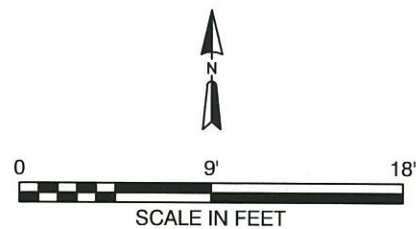


Figure 3
*ESPI Building Area A2 Floor and Ceiling
 Decontamination Verification
 PCB Wipe Sampling Locations
 Earth Protection Services, Inc.
 10 South 48th Avenue, Suite 4
 Phoenix, Arizona*

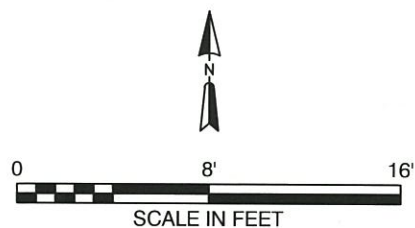
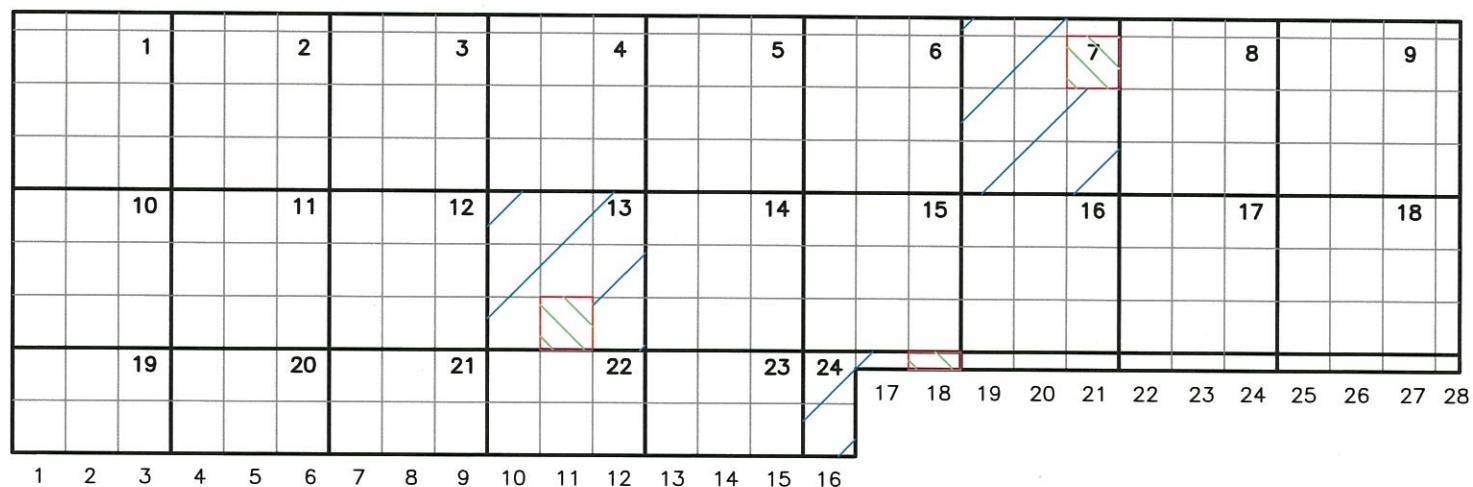


Figure 4
*ESPI Building Area A3, Floor
 Decontamination Verification
 PCB Wipe Sampling Locations
 Earth Protection Services, Inc.
 10 South 48th Avenue, Suite 4
 Phoenix, Arizona*

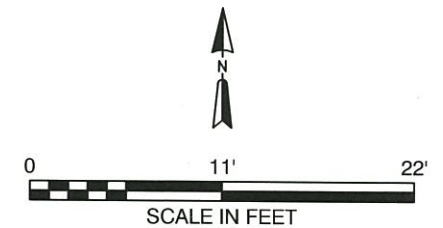
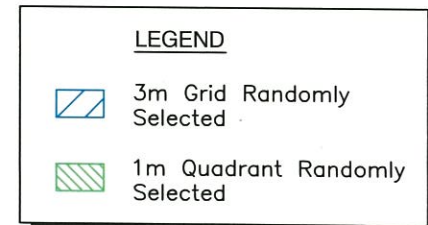
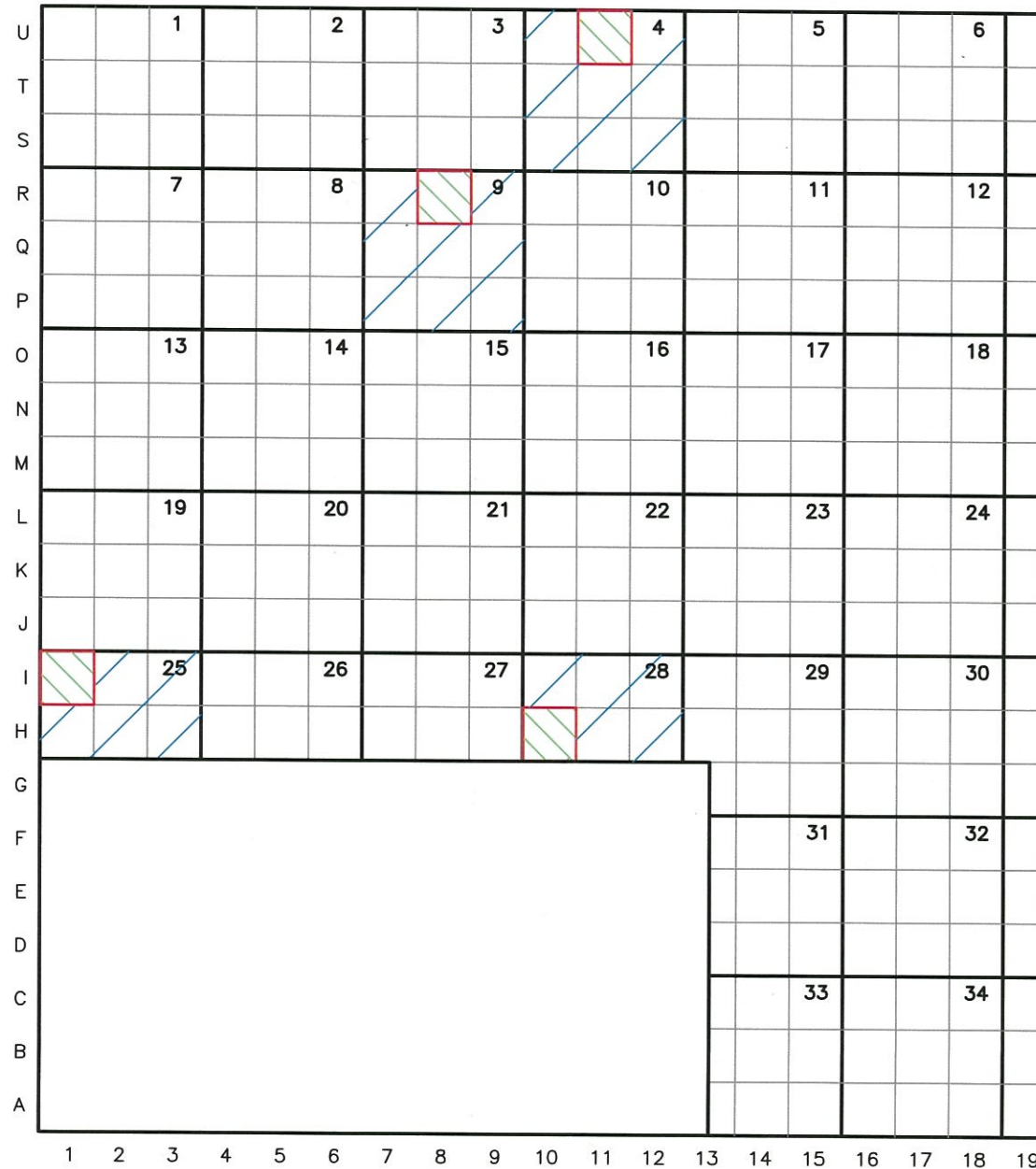


Figure 5
*ESPI Building Area A4 Floor
 Decontamination Verification
 PCB Wipe Sampling Locations
 Earth Protection Services, Inc.
 10 South 48th Avenue, Suite 4
 Phoenix, Arizona*

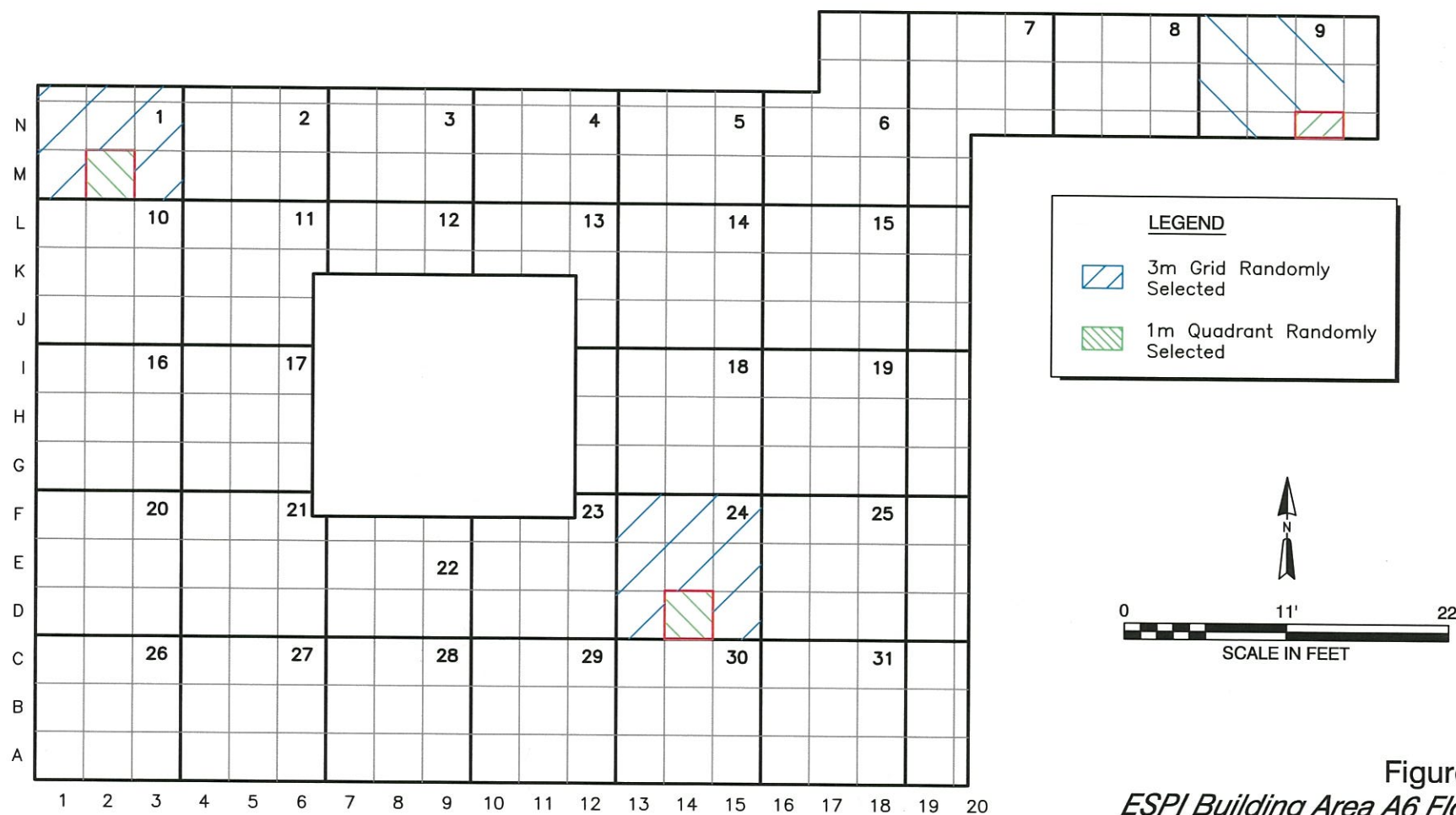
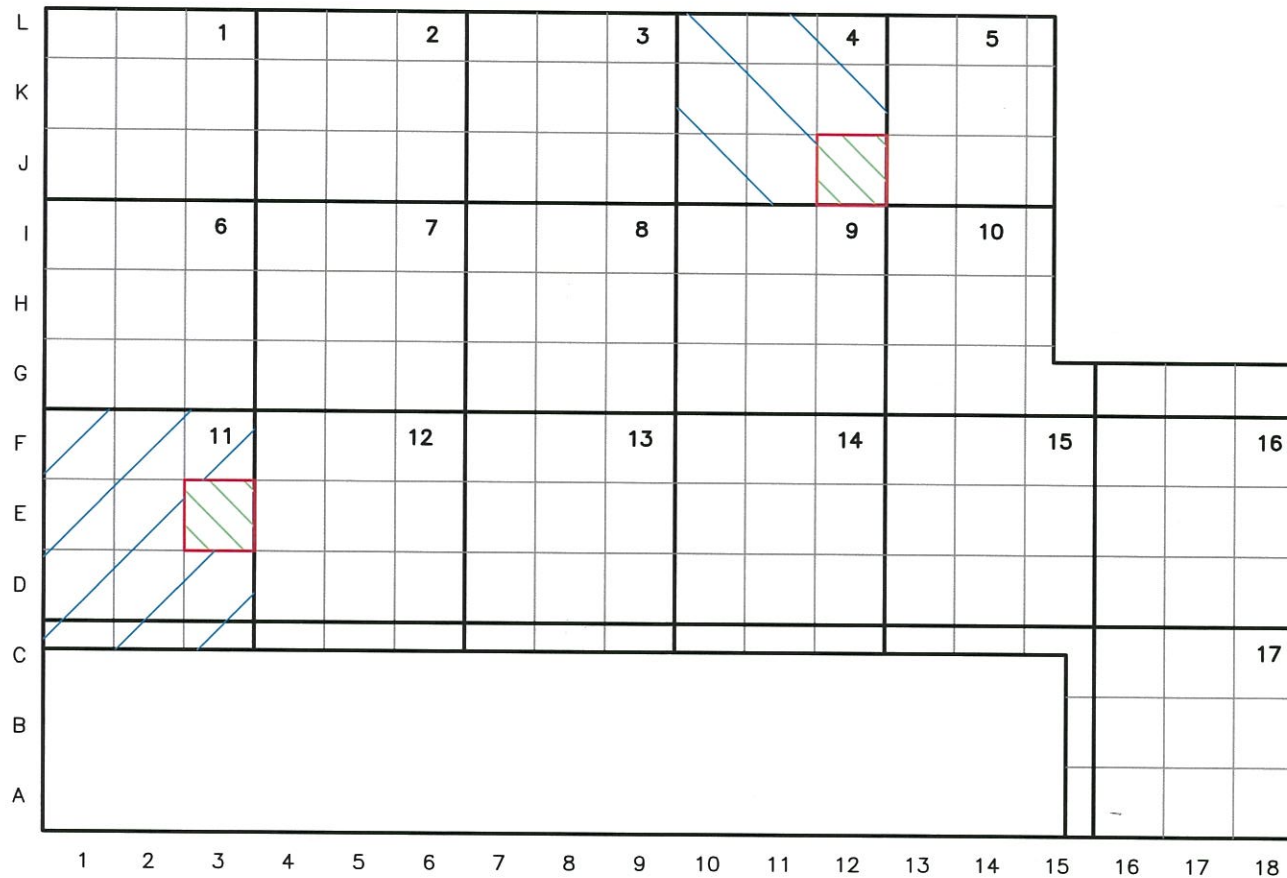


Figure 6
*ESPI Building Area A6 Floor
Decontamination Verification
PCB Wipe Sampling Locations
Earth Protection Services, Inc.
10 South 48th Avenue, Suite 4
Phoenix, Arizona*



LEGEND

3m Grid Randomly Selected

1m Quadrant Randomly Selected

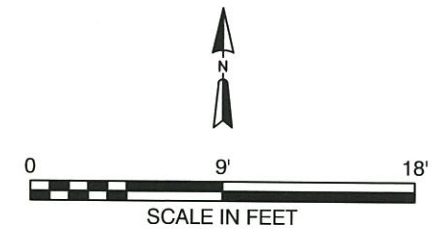


Figure 7
*ESPI Building Area A7 Floor
Decontamination Verification
PCB Wipe Sampling Locations
Earth Protection Services, Inc.
10 South 48th Avenue, Suite 4
Phoenix, Arizona*

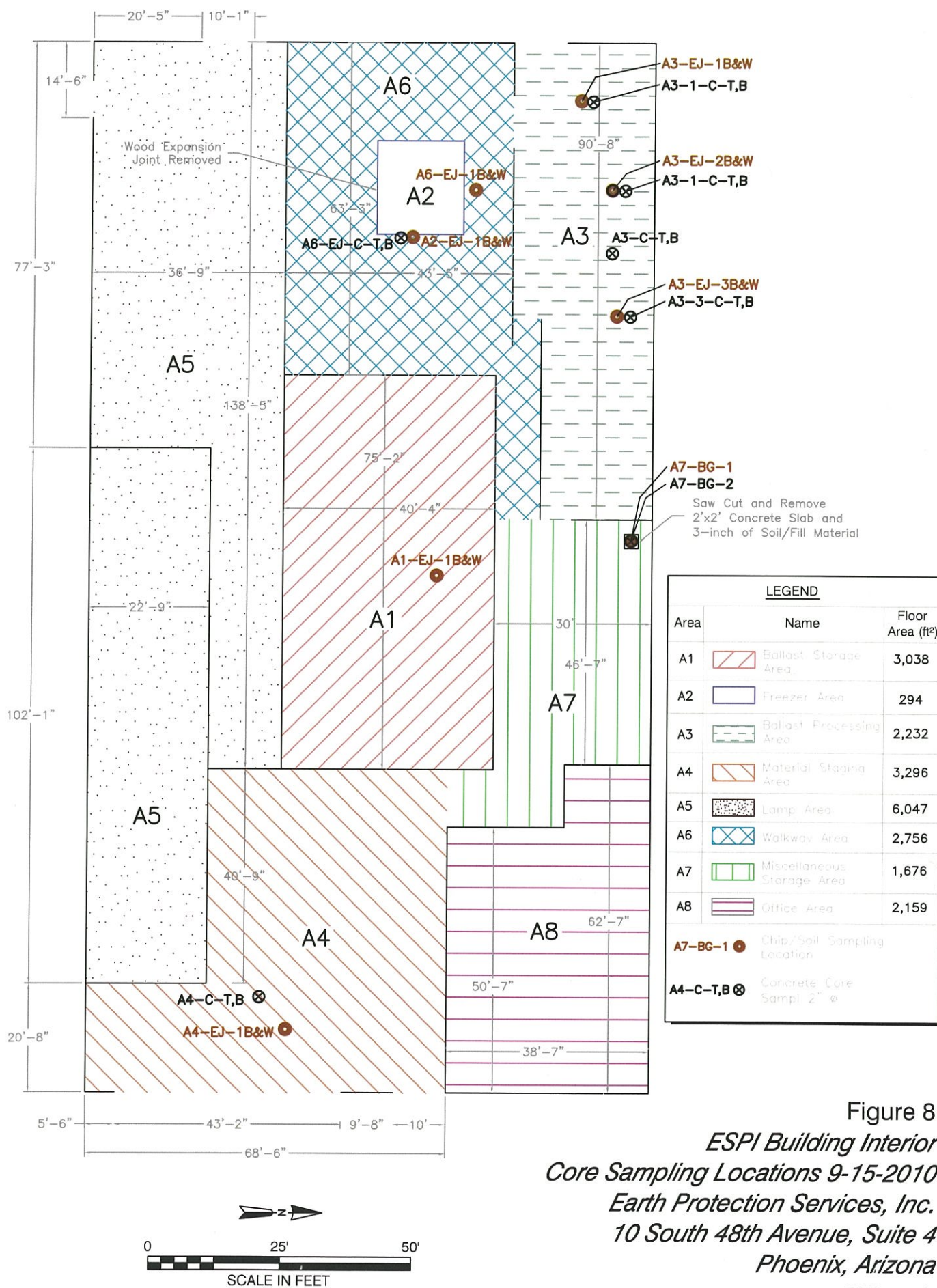


Figure 8
 ESPI Building Interior
 Core Sampling Locations 9-15-2010
 Earth Protection Services, Inc.
 10 South 48th Avenue, Suite 4
 Phoenix, Arizona